



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA-HQ-SFUND-1983-0002; FRL-9997-54-Region 5]

**National Oil and Hazardous Substances Pollution Contingency
Plan;**

**National Priorities List: Deletion of the Buckeye
Reclamation Landfill Superfund Site**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) Region 5 is publishing a direct final Notice of Deletion of the Buckeye Reclamation Landfill Superfund Site (Buckeye Site), located in St. Clairsville, Ohio from the National Priorities List (NPL). The NPL, promulgated pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This direct final deletion is being published by EPA with the concurrence of the State of Ohio (Ohio), through the Ohio Environmental Protection Agency (OEPA), because EPA has determined that all appropriate response actions under CERCLA, other than operation and maintenance, monitoring

and five-year reviews, have been completed. However, this deletion does not preclude future actions under Superfund.

DATES: This direct final deletion is effective [insert date 60 days from the date of publication in the *Federal Register*] unless EPA receives adverse comments by [insert date 30 days from date of publication in the *Federal Register*]. If adverse comments are received, EPA will publish a timely withdrawal of the direct final deletion in the **Federal Register** informing the public that the deletion will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-SFUND-1983-0002 by one of the following methods:

<https://www.regulations.gov>. Follow the on-line instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located

outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

Email: cano.randolph@epa.gov.

Mail: Randolph Cano, NPL Deletion Coordinator, U.S. Environmental Protection Agency Region 5 (ST-6J), 77 West Jackson Boulevard, Chicago, IL 60604, (312) 886-6036.

Hand deliver: Superfund Records Center, U.S. Environmental Protection Agency Region 5, 77 West Jackson Boulevard, 7th Floor South, Chicago, IL 60604, (312) 886-0900. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information. The normal business hours are Monday through Friday, 8 a.m. to 4 p.m., excluding Federal holidays.

Docket: All documents in the docket are listed in the <https://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy.

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St. Clairsville Public Library, 108 W. Main Street,
St. Clairsville, OH 43950. Phone: (740) 695-2062. Hours:
Monday through Wednesday, 9 a.m. to 8 p.m., Thursday
through Friday, 9 a.m. to 6 p.m., Saturday 10 a.m. to 2
p.m., Sunday closed.

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SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
- II. NPL Deletion Criteria
- III. Deletion Procedures
- IV. Basis for Site Deletion

V. Deletion Action

I. Introduction

EPA Region 5 is publishing this direct final Notice of Deletion of the Buckeye Site from the NPL. The NPL constitutes Appendix B of 40 CFR part 300, which is the NCP, which EPA promulgated pursuant to Section 105 of CERCLA of 1980, as amended. EPA maintains the NPL as the list of sites that appear to present a significant risk to public health, welfare, or the environment. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). As described in 300.425(e)(3) of the NCP, sites deleted from the NPL remain eligible for Fund-financed remedial actions if future conditions warrant such actions.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses procedures that EPA is using for this action. Section IV discusses the Buckeye Site and demonstrates how it meets the deletion criteria. Section V discusses EPA's action to delete the Buckeye Site from the NPL unless adverse comments are received during the public comment period.

II. NPL Deletion Criteria

The NCP establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR

300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR 300.425(e), EPA will consider, in consultation with the state, whether any of the following criteria have been met:

- i. Responsible parties or other persons have implemented all appropriate response actions required;
- ii. All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or
- iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA Section 121(c) and the NCP, EPA conducts five-year reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure. EPA conducts such five-year reviews even if a site is deleted from the NPL. EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from

a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

III. Deletion Procedures

The following procedures apply to deletion of the Buckeye Site:

(1) EPA consulted with Ohio prior to developing this direct final Notice of Deletion and the Notice of Intent to Delete co-published today in the "Proposed Rules" section of the **Federal Register**.

(2) EPA has provided Ohio 30 working days for review of this notice and the parallel Notice of Intent to Delete prior to their publication today, and Ohio, through the OEPA, has concurred on the deletion of the Buckeye Site from the NPL.

(3) Concurrently with the publication of this direct final Notice of Deletion, an advertisement of the availability of the parallel Notice of Intent to Delete is being published in a major local newspaper, The Times-Leader. The newspaper advertisement announces the 30-day public comment period concerning the Notice of Intent to Delete the Buckeye Site from the NPL.

(4) The EPA placed copies of documents supporting the proposed deletion in the deletion docket and made these

items available for public inspection and copying at the Buckeye Site information repositories identified above.

(5) If adverse comments are received within the 30-day public comment period on this deletion action, EPA will publish a timely notice of withdrawal of this direct final Notice of Deletion before its effective date and will prepare a response to comments and continue with the deletion process on the basis of the Notice of Intent to Delete and the comments already received.

Deletion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e) (3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

IV. Basis for Site Deletion

The following information provides EPA's rationale for deleting the Buckeye Site from the NPL:

Site Background and History

The Buckeye Site (CERCLIS ID: OHD980509657) is located approximately 4 miles southeast of the City of St. Clairsville and 1.2 miles south of Interstate 70 in Belmont County, Ohio. The northeast corner of the Buckeye Site is bordered by Interstate 470, which is located about 3,000 feet north of the landfill.

The Buckeye Site occupies approximately 100 acres of land surrounded by a chain link fence. The Buckeye Site extends approximately 0.70 miles from north to south and varies from 500 to 1,000 feet wide (see Figure 1 in the Docket). Access is provided by a road located at the north entrance of the Buckeye Site.

The Buckeye Site is situated in the Kings Run drainage ravine and is bordered by Kings Run to the east and an unnamed stream to the west. Kings Run flows to the south and empties into Little McMahon Creek. The property surrounding the Buckeye Site to the east and west is hilly and mostly forested. Farmland and a strip mine are located west of the property. The land to the south is forested with steep slopes cleared for industrial use along the stream valleys and roadways. An environmental transfer station and additional farmland extend to the north and northeast of the Buckeye Site.

The groundwater at the Buckeye Site is not being used as a source of drinking water, and the Belmont County Water and Sewer District supplies the nearest neighborhood with drinking water. Residents closest to the Buckeye Site, including a nearby resident downstream of Kings Run, obtain drinking water from the county and not private wells.

The Buckeye Site was used for deep underground coal mining activities until the early 1950s. In 1971, the Belmont County Health Department licensed the Buckeye Site for use as a municipal solid waste landfill. The landfill was operated by the Ohio Resources Corporation under the name of Buckeye Reclamation Company.

The landfill accepted municipal solid waste, as well as industrial sludge and liquids, most of which were received between 1976 and 1979. The industrial wastes were disposed in a 50-acre waste pit located in the northern section of the landfill.

EPA and OEPA began investigating the Buckeye Site in the 1980s to determine whether the landfill posed a potential risk to public health and the environment. EPA and OEPA identified 12 contaminants of concern (COCs) in the waste pit, soil, leachate, groundwater, and surface water. These COCs accounted for the majority of the

health-based risk posed by the Buckeye Site. The COCs included the inorganic contaminants arsenic, beryllium, lead, cadmium, chromium, and nickel. The organic COCs were benzene, trichloroethene, carbon tetrachloride, 1,1-dichloroethene, polycyclic aromatic hydrocarbons, and toluene.

EPA proposed the Buckeye Site to the NPL on December 30, 1982 (47 FR 58476). EPA finalized the NPL listing for the Buckeye Site on September 8, 1983 (48 FR 40658).

Current use of the 91.1-acre landfill area and an additional 349.6 acres of surrounding property affected by the landfill is restricted by an Ohio Uniform Environmental Covenants Act (UECA) restrictive covenant. The restrictive covenant applies to four parcels of land (see Figure 3 in the Docket). The covenant prohibits drilling, digging, and construction on the parcels; restricts parcel use to commercial/industrial uses; and prohibits the consumption of groundwater. The neighborhood closest to the Buckeye Site is supplied with drinking water by the Belmont County Water and Sewer District.

Remedial Investigation (RI)/Feasibility Study (FS)

EPA identified several potentially responsible parties (PRPs) for the landfill including the landfill operator and several waste generators. In 1985, a group of the PRPs

agreed to conduct a remedial investigation and feasibility study (RI/FS) at the Buckeye Site pursuant to an administrative order on consent. The purpose of the RI/FS was to define the nature and extent of the contamination at the landfill, assess risks, and evaluate cleanup alternatives.

The PRPs investigated the contaminant source area (the landfill), soil, surface water, sediment, leachate, groundwater, and air. The RI found various levels of carcinogenic and noncarcinogenic chemicals in all media sampled, except air. The RI indicated that there were three sources of contamination at the Buckeye Site: 1) industrial waste disposed in or around the waste pit, 2) solid waste disposed in the general landfill area, and 3) coal mine refuse placed in the area before landfilling operations began. The PRPs completed the RI in 1989.

The PRPs conducted an endangerment assessment (EA) to determine the extent of the threat to public health and the environment posed by the Buckeye Site under present and future conditions, and to determine which aspects of the Buckeye Site warranted remediation. The PRPs submitted a draft EA Report in 1989. EPA and OEPA had a significant number of comments on the EA Report and did not approve the report. EPA retained a contractor to address EPA's and

OEPA's comments on the draft EA Report. EPA's contractor completed a final EA Report in 1990.

The EA Report concluded that three significant exposure and contaminant routes existed at the Buckeye Site. These routes were: 1) dermal contact, inhalation and ingestion of surface soils, 2) migration of contaminants from surface and subsurface soils into groundwater and surface water, and 3) ingestion of contaminated groundwater and surface water.

The EA indicated that the Buckeye Site posed an unacceptable cancer risk to current adult and adolescent dirt-bike riders at the landfill. The unacceptable cancer risks were primarily due to dust inhalation and ranged from 3.76×10^{-4} to 1.05×10^{-3} for average and maximum chemical concentrations. The EA did not identify any noncancer risks under the current exposure scenario, or any cancer or noncancer risks to current off-site well users.

The EA identified unacceptable cancer and noncancer risks to future residents at the Buckeye Site under a potential future residential scenario. The risks were due to exposure to contaminated soil, groundwater and surface water. The cancer risks for potential future residential exposure ranged from 6.53×10^{-3} for average chemical concentrations to 1.48×10^{-2} for maximum chemical

concentrations. The estimated noncancer risks for potential future residential exposure were a hazard index (HI) of 7.81 to 21.3 assuming average and maximum chemical concentrations. EPA generally considers a cancer risk greater than 1×10^{-4} or an HI greater than 1 as an unacceptable risk which may require action.

The RI showed that most of the groundwater underlying the Buckeye Site migrates laterally into the coal mine refuse at the Buckeye Site and is discharged as leachate to Kings Run. This means that most of the groundwater at the Buckeye Site becomes surface water before leaving the property. Therefore, EPA and OEPA determined that groundwater and surface water could be treated under a single remedial action objective (RAO).

The PRPs conducted a macroinvertebrate population survey and a fish population survey as part of the EA. The survey documented that the Buckeye Site was impacting nearby streams and stream beds. Where organisms were present at all, the communities were dominated by pollution-tolerant species. The monitoring data, however, was not able to distinguish between environmental impacts due to the waste disposal practices at the landfill or to the acid mine drainage from past mining operations at the Buckeye Site.

The PRPs completed an FS to develop and evaluate cleanup alternatives to address the unacceptable risks posed by the Buckeye Site in 1990. The FS evaluated five cleanup alternatives: no action; hazardous waste landfill cap and groundwater and surface water collection with chemical treatment; hazardous waste landfill cap and groundwater and surface water collection with wetlands treatment; solid waste landfill cap and groundwater and surface water collection with chemical treatment; and solid waste landfill cap and groundwater and surface water collection with wetlands treatment.

Selected Remedy

EPA selected a cleanup remedy for the Buckeye Site in an August 19, 1991 Record of Decision (ROD). EPA's RAO for the cleanup is to protect public health and the environment from contaminants in surface and subsurface soil, groundwater and surface water at the Buckeye Site by: (1) Limiting direct physical contact with contaminated soils to reduce the threat of dermal contact, inhalation, and ingestion; and (2) Restoring the groundwater and surface water to a useful, less threatening state by reducing the levels of contamination.

EPA selected Alternative 4B as the cleanup remedy. Alternative 4B involves the following remedial components:

(1) Solid waste landfill cap; (2) Institutional controls; (3) Fencing; (4) Groundwater collection; (5) Surface leachate seep collection; (6) Groundwater monitoring; (7) Surface leachate seep monitoring; (8) Monitoring of Kings Run; and (9) Groundwater/leachate treatment by constructed wetlands (Option B). This option involves constructing a groundwater/leachate collection system to intercept leachate, groundwater and acid mine drainage from the landfilled area (all of which have low pH values) and channeling it to the wetlands treatment system.

During the remedial design (RD) phase of the project, the PRPs conducted several predesign studies to collect additional information to design and implement the selected remedy. The PRPs' predesign studies included hydrogeologic studies, a landfill cap study, a constructed wetlands study, borrow area studies and a slope stability study.

Based on the results of the predesign studies, EPA issued modifications to the selected remedy in a July 17, 1997 Explanation of Significant Differences (ESD). The remedy modifications included: (1) A reduction, from 97 to 37 acres, of the area over which a solid waste landfill cap would be constructed; (2) Construction of a vegetated soil cap over an area of 24 acres; (3) Repair of the existing cap over approximately 29 acres; (4) Modification of the

slope of the cap bordering a portion of Kings Run; (5) Realignment and lining of Kings Run; (6) Elimination of the Northern Impoundment; (7) Deferral of the groundwater/leachate treatment system until after cap construction and monitoring to determine if a treatment system is required [to be conducted as Phase II of the remedial action (RA)]; and (8) Modification of the description of groundwater samples to be used for determination of background levels in groundwater.

EPA and 14 PRPs signed a Consent Decree that became effective on March 17, 1998. The Consent Decree required the PRPs to implement the selected remedy in the 1991 ROD, as modified by the 1997 ESD. The PRPs conducted the RA in two phases.

During the Phase I RA, the PRPs implemented all aspects of the selected remedy except the deferred groundwater/leachate wetlands treatment system. The PRPs also conducted four rounds of quarterly groundwater, surface water and leachate monitoring. Based on the monitoring data, EPA issued a second ESD for the Buckeye Site on August 15, 2003. The 2003 ESD documented the following decisions and additional changes to the remedy:

(1) The low pH values in surface water and leachate are directly related to acid mine drainage and are considered background;

(2) The flows from Kings Run and the landfill leachate collection system will be combined for off-site discharge to Little McMahon Creek;

(3) The Ohio criteria, as modified by the Ohio Revised Code Chapter 6111 Water Pollution Control Act, reflect the current OEPA risk and ecological information and these changes in general improve the quality of surface waters in Ohio. These new criteria replace the "Final Effluent Limitations and Monitoring Requirements for the Buckeye Site provided in Sections A.1 and A.2 of ROD Attachment A;

(4) Monitoring of the combined flow will be conducted monthly at a location downgradient of the combined flows, for two years starting in February 2004. At the end of two years the data will be evaluated, and the monitoring requirements reviewed. If the discharge standards are not met during or at the end of the two-year monitoring period, the provisions for surface water treatment will be revisited; and

(5) No additional groundwater/leachate collection mechanisms will be required.

EPA issued a third ESD for the Buckeye Site on September 16, 2011. The 2011 ESD documents EPA's decision, based on seven years of monitoring data and other information, that it was necessary to construct the treatment wetlands to treat the groundwater/leachate at the Buckeye Site. The 2011 ESD also documented a significant change in the design and operation and maintenance (O&M) requirements of the treatment wetlands compared to the ROD's description of this component of the remedy.

Based on the post-ROD monitoring data, the 2011 ESD modified the total size and cell composition of the wetlands to reflect the actual treatment necessary to address current Buckeye Site conditions. The 2011 ESD also allows for future changes to wetlands performance monitoring frequency and/or monitoring parameters as approved by EPA.

Remedy Implementation

The PRPs began the Phase I RA construction work in April 1999. EPA and OEPA conducted a pre-final inspection on August 29, 2001, and a final inspection on September 27, 2001. During the final inspection EPA and OEPA determined that the PRPs constructed the remedy in accordance with the Phase I RD plans and specifications.

The Phase I RA construction work included the following: (1) Construction of a solid waste landfill cap over approximately 37 acres with a passive landfill gas collection and venting system; (2) Construction of a vegetated cap over approximately 24 acres; (3) Repair of existing cover where necessary over approximately 29 acres; (4) Realignment and lining of Kings Run; (5) Elimination of the Northern Impoundment; (6) Installation of surface water management structures; (7) Construction of access roads; (8) Installation of perimeter fencing; and (9) Installation of groundwater/leachate seep collection boxes, a French drain, and a groundwater/leachate transport pipe.

EPA signed a Preliminary Close Out Report (PCOR) on May 14, 2003 documenting that the RA construction at the Buckeye Site was complete. The completion of the Phase I RA and documentation of the Phase I RA Construction Quality Control/Quality Assurance Program is provided in the PRPs' November 7, 2001 Phase I Remedial Action Construction Completion Report.

Based on the quarterly leachate monitoring data available at the time of the PCOR, EPA believed that the Phase II RA work was not required. Additional monitoring conducted subsequent to the PCOR, however, indicated that

the Phase II RA work was needed, which EPA documented in the 2011 ESD.

The PRPs initiated the Phase II RA construction work on September 12, 2011. The Phase II RA involved constructing the treatment wetlands for the collected groundwater and leachate. EPA approved the PRPs' wetlands design plans in September 2011. The PRPs substantially completed the Phase II RA construction work by November 14, 2011.

The treatment wetlands system is designed to capture the flow from the Groundwater/Leachate Transport Pipe, Kings Run French Drain, Seep L-4, and Seep A and treat the water in two wetland cells. The cells are partially lined with limestone and the collected groundwater/leachate flows from one treatment cell to the other via gravity flow. The treated water then discharges into the existing principal spillway and into Kings Run, which discharges into Little McMahon Creek. The Phase II RA also included the construction of planting shelves and discharge and outfall structures. See Figure 2 in the Docket.

The objective of the treatment system is to raise the pH of the collected water, reduce the concentrations of COCs to acceptable levels prior to discharge, and meet the surface water discharge limits in Attachment B of the 2003

ESD. In addition, the wetlands system uses passive aeration and pH-adjustment to precipitate and remove dissolved iron and other metals from the groundwater/leachate, resulting in a reduction of the orange/red color and iron precipitate embedment observed in Kings Run.

Documentation of the PRPs' Phase II RA and Phase II Construction Quality Control/Quality Assurance Program is provided in the PRPs' June 20, 2012 Phase II Remedial Action Construction Completion Report.

Cleanup Levels

The remedy for the landfill materials and contaminated soil at the Buckeye Site is a containment remedy; therefore, the 1991 ROD does not establish cleanup levels for the landfill materials or soil.

The contaminated groundwater/leachate at the Buckeye Site is addressed by the constructed wetlands collection and treatment system. The 1991 ROD did not establish specific quantitative performance criteria for groundwater/leachate treatment. Instead, the ROD included final effluent limitations and monitoring requirements for the discharge of the treated groundwater and leachate to Little McMahon Creek.

EPA updated the discharge requirements for the Buckeye Site in the 2003 ESD (see Attachment B of the 2003 ESD, ESD Limits and Monitoring Requirements for Buckeye Reclamation Landfill Authorized Discharges, in the Docket). The updated discharge requirements are based on the regulations in the Ohio Revised Code Chapter 6111 Water Pollution Control Act and apply to the combined flow from Kings Run and the landfill groundwater/leachate wetlands treatment system at location KR-2, prior to discharging to Little McMahon Creek (see Figure 2 in the Docket).

EPA issued a third ESD, which addressed discharge requirements, in 2011. The 2011 ESD allows for future changes to the monitoring frequency and/or monitoring parameters if approved in writing by EPA. In 2014, as allowed by the 2011 ESD, EPA approved a reduction in the monitoring frequency for KR-2, from monthly to every two months.

Wetland and surface water monitoring data collected by the PRPs from December 2011 to December 2016 indicate that the wetlands are generally operating in accordance with the 2011 Engineering Design objectives. The key wetlands design objective is 20 to 40 percent iron removal, and the wetlands are typically achieving a 50 to 60 percent iron removal. Frequent low-pH values are detected in the

wetlands discharge during periods of low flow and are most likely due to iron hydroxide precipitation/accumulation coupled with the influence of less buffering and retention capacity in wetlands treatment Cell #2. In 2015, the PRPs augmented the wetlands with additional limestone to mitigate this effect.

The surface water monitoring data collected downstream from the constructed wetlands at location KR-2 have demonstrated ongoing compliance with the discharge limits except for low pH and occasional exceedances of Whole Effluent Toxicity (WET) test limits. Similar to the pH values found in the wetlands samples, low pH values in the surface water samples tend to correspond with periods of low flow and low precipitation. Overall, discharge water quality has improved since the construction of the treatment wetlands system, as demonstrated by an overall improvement in the WET test results and the removal of significant amounts of iron (approximately 20 tons per year), indicating that the system is working effectively.

Additional information concerning the wetlands and surface water monitoring data is available in the 2018 6th Annual Wetland/SWCMP Report in the Docket.

Although there are no cleanup standards for groundwater, the PRPs conduct semiannual long-term

groundwater monitoring at the Buckeye Site in accordance with the January 2004 Phase I RA O&M Plan. Approximately 32 rounds of groundwater monitoring data have been collected at the Buckeye Site since the Phase I RA construction work was completed in 2001.

The groundwater monitoring well network consists of 15 monitoring wells in the three hydrogeologic units of concern at the Buckeye Site: the Unconsolidated Materials/Mine Refuse unit, the Benwood Limestone unit, and the Redstone Limestone unit (see Figure 1.1 in the Docket). The groundwater monitoring indicates that a few organic compounds continue to be very infrequently detected at low estimated concentrations that do not exceed Maximum Contaminant Levels (MCLs). Arsenic continues to be detected above MCLs in a groundwater monitoring well installed in the Unconsolidated Materials/Mine Refuse unit, but was not detected in any of the other groundwater monitoring wells or hydrogeological units. A few other metals and general chemistry parameters are also present at levels above secondary MCLs. See Figures 2.1 to 2.3 and Table 1.1 in the Docket.

The primary COCs identified at concentrations above MCLs and/or above background values in all three hydrogeological units at the Buckeye Site are: sulfate,

iron, chloride, manganese, total dissolved solids, and di(2-ethylhexyl) phthalate. These COCs have only secondary MCLs. Arsenic is present at concentrations above the MCL, but only in one well located in the Unconsolidated Materials/Mine Refuse unit.

The concentrations of the groundwater constituents decrease to below detection limits before moving beyond the Buckeye Site boundaries. In addition, the concentrations of the significant groundwater constituents at the Buckeye Site have been relatively stable over the past eight years. Groundwater at the Buckeye Site is not used as a source of drinking water, and the closest neighborhood is supplied with water from the Belmont County Water and Sewer District.

The most recent groundwater monitoring results for the Buckeye Site are available in the 2019 Groundwater Monitoring Program Report, Year 17, Round 2, in the Docket.

On December 1, 2017, EPA's Office of Superfund Remediation and Technology Innovation (OSRTI) and Region 5 held a conference call to discuss the proposal for Per- and Polyfluoroalkyl Substances (PFAS) sampling at the Buckeye Site prior to proposing the Buckeye Site for deletion from the NPL. Based on the waste that was deposited at the Buckeye Site and the length of time that the landfill was

open, OSRTI concurred that sampling was warranted to determine whether PFAS is present.

On June 5, 2018, EPA approved the PRPs' Quality Assurance Project Plan (QAPP), Per- and Polyfluoroalkyl Substances Amendment, Revision No. 5. In July 2018, with EPA field oversight, the PRPs collected samples for PFAS analysis from the complete network of 15 groundwater monitoring wells (shown on Figure 4 in the Docket) and from three surface water monitoring locations (KR-1, KR-2 and KR-3, shown on Figure 2 in the Docket). The PRPs submitted the samples to TestAmerica Laboratories, Inc. to run analytical method EPA 537 Modified. EPA collected split samples at each sample location and submitted the samples to its Chicago Regional Lab (CRL) to run CRL Standard Operating Procedure OM021, which references American Society for Testing and Materials Method 7979.

Because many materials potentially can contain PFAS, a conservative PFAS sampling protocol was implemented to avoid cross-contamination. It is important to note that at the time of the PFAS sampling, there were no EPA-approved methods for the preparation and analysis of PFAS samples in media other than drinking water. (EPA's approved method for PFAS in drinking water is EPA Method 537.) The

groundwater and surface water that was sampled is not drinking water.

Review of the two data sets, the PRPs' and EPA's, indicate comparable results with no major differences or significant data issues. The majority of the EPA sample results for the sum of the concentrations for two main PFAS substances, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), were non-detect, while the PRPs' sample results had more detections. In both cases, the sums of the concentrations of PFOA and PFOS for EPA's and the PRPs' individual samples, were well below 70 nanograms per liter (ng/L) (equivalent to 70 parts per trillion), which is EPA's non-regulatory lifetime Health Advisory for drinking water.

The maximum concentration of the sum of PFOA/PFOS detected in EPA's groundwater samples was 12.8 ng/L. The maximum concentration of the sum of PFOA/PFOS detected in the PRPs' groundwater samples was 16.8 ng/L.

EPA's surface water results at surface water sampling locations KR-3 (upstream of the Buckeye Site) and KR-1 (adjacent to the Buckeye Site) for the sum of PFOA/PFOS were non-detect. EPA's surface water sampling result for the sum of PFOA/PFOS at location KR-2 (downstream of the Buckeye Site) was 11.7 ng/L. The PRPs' surface water

results for the sum of PFOA/PFOS at the three surface water sampling locations were: 5.3 ng/L at KR-3, 6.50 ng/L at KR-1, and 10.6 ng/L at KR-2.

Based on the PFAS data, EPA believes that PFAS is not significantly present at the Buckeye Site. Additionally, groundwater at the Buckeye Site is not used as a source of drinking water and the closest residential area to the Buckeye Site is supplied with water from the Belmont County Water and Sewer District. EPA has therefore concluded that further PFAS investigation at the Buckeye Site is not warranted and that the Buckeye Site remains eligible for NPL deletion.

Operation and Maintenance

The PRPs' contractor conducts long-term O&M at the Buckeye Site in accordance with the revised January 2004 O&M Plan for the Phase I RA work and the June 2012 O&M Plan for the Phase II RA work (Appendix B of the 2012 Phase II RA and Construction Completion Report).

The selected remedy does not include any actively-operating systems. Phase I O&M activities for the Buckeye Site address the Phase I remedial components (e.g., landfill cap, passive gas collection system components, channels, roads, fence, etc.) and include regular inspections, routine and unscheduled maintenance, quarterly

Buckeye Site inspections, long-term groundwater monitoring, and annual explosive gas monitoring and reporting. Phase II O&M activities for the Buckeye Site include wetlands performance and surface water monitoring.

Additional information about the O&M activities and monitoring results at the Buckeye Site is available in the Docket in the 2016 Phase I and II Remedial Action Post Closure Operation and Maintenance Inspection Report, the 2018 6th Annual Wetland/SWCMP Report, and the 2019 Groundwater Monitoring Program Report, Year 17, Round 2.

The selected remedy includes institutional controls (ICs) as a remedy component. EPA determined that ICs in the form of proprietary controls were needed for all properties affected by the approximately 100-acre landfill cap at the Buckeye Site. The proprietary control implemented on these parcels is a Uniform Environmental Covenants Act (UECA) restrictive covenant. On February 21, 2013, the property owner recorded an Environmental Covenant with the Belmont County Recorder's Office, Instrument No. 2013000020080. Four (4) parcels of real property which together contain 440.658 acres are subject to the covenant.

The environmental covenant prohibits drilling, digging, and construction on the parcels, restricts parcel use to commercial/industrial, and prohibits the consumption

of groundwater. A copy of the environmental covenant is provided in the Docket. The covenant is an effective control to assure long-term protectiveness for any areas of the Buckeye Site which do not allow for unlimited use and unrestricted exposure (UU/UE).

Long-term stewardship is addressed at the Buckeye Site through the implementation of the environmental covenant, in conjunction with engineering controls and routine O&M inspections, to ensure that the remedy continues to function as intended. The Buckeye Site achieved EPA's Site-Wide Ready for Anticipated Use designation on May 1, 2013.

Five-Year Review

The Buckeye Site requires statutory five-year reviews (FYRs) due to the fact that hazardous substances, pollutants, or contaminants remain at the Buckeye Site above levels that allow for UU/UE.

EPA completed the third FYR for the Buckeye Site in May 2014. The 2014 FYR found that the site-wide remedy is protective of human health and the environment. Exposure pathways that could result in unacceptable risks are being controlled and monitored. An environmental covenant is in place and restricts parcel use that would defeat or impair the effectiveness of the remedial measures. The

environmental covenant prohibits drilling, digging, and construction on the parcels, restricts parcel use to commercial/industrial activities, and prohibits the consumption of groundwater.

The 2014 FYR did not identify any issues that affect the protectiveness of the remedy at the Buckeye Site. The FYR, however, noted that further data collection and evaluation are needed to determine the effectiveness of the constructed wetlands and the achievement of the design goals over the long-term.

In 2016, the PRPs addressed the concerns identified in the 2014 FYR by removing sediment from the wetland, replacing the iron-encrusted limestone in Cell #1 with fresh limestone, and placing limestone in Cell #2. In 2017, the PRPs also implemented additional monitoring to assist in further evaluating the low pHs observed in the wetlands discharge and at KR-2 and to evaluate other wetlands performance and surface water quality conditions.

Over time, long-term trends for the constructed wetland will be available from the continued required monitoring and reporting, such as the effects of seasonal weather conditions on the efficiency of the wetland, the effectiveness of the wetlands in adjusting the pH and removing iron from the collected groundwater/leachate, and

the impact of the wetlands system on the water quality of Kings Run and Little McMahon Creek.

Copies of the 2004, 2009 and 2014 FYR Reports are available in the Docket. EPA expects to complete the next FYR for the Buckeye Site in 2019.

Community Involvement

EPA satisfied public participation activities for the Buckeye Site as required by Sections 113(k) (2) (B) (i-v) and 117 of CERCLA, 42 U.S.C. 9613(k) (2) (B) (i-v) and 9617. EPA established local information repositories for the Buckeye Site at the St. Clairsville Public Library in Clairsville, Ohio and at the Neffs Branch of the Martins Ferry Public Library in Neffs, Ohio. EPA maintains a copy of the administrative record documents for the Buckeye Site at the local information repositories and at EPA's Region 5 office.

EPA released the FS Report and its proposed cleanup plan for the Buckeye Site to the public in May 1991 at the start of the public comment period. EPA published newspaper announcements advertising the proposed cleanup plan for the Buckeye Site, the 30-day public comment period, and the availability of a public meeting, in The Times Leader, Martins Ferry, Ohio and in The Intelligencer, in Wheeling, West Virginia. EPA also mailed a fact sheet

summarizing the proposed cleanup plan to individuals on the Site mailing list.

EPA and OEPA conducted a public meeting on May 30, 1991, to explain the details of the Buckeye Site RI/FS and proposed cleanup plan, answer questions from the community, and accept public comments. A court reporter was present to record the meeting. EPA also distributed copies of the Proposed Plan fact sheet at the meeting.

EPA received a request for a 10-day extension to the public comment period on May 31, 1991. EPA granted the extension, which ran until June 26, 1991. EPA placed a public notice in The Intelligencer and The Times Leader announcing the extension to the public comment period. EPA responded to the comments received during the public comment period in a Responsiveness Summary attached to the 1991 ROD.

As part of the FYR process, EPA published advertisements announcing EPA's FYRs for the Buckeye Site in the local newspaper, The Times Leader, on October 23, 2008 and February 2, 2014. The newspaper announcements informed the community about the start and purpose of the FYRs and invited the public to submit comments and concerns about the Buckeye Site to EPA. EPA placed copies of the 2004, 2009 and 2014 FYR Reports in the local information

repositories in the St. Clairsville and Martins Ferry public libraries, and made them available on EPA's website.

EPA arranged to publish an advertisement announcing the publication of this rule and the 30-day public comment period in The Times Leader concurrent with publishing this deletion in the **Federal Register**. Documents in the deletion docket, which EPA relied on to support the deletion of the Buckeye Site from the NPL, are available to the public at the Buckeye Site information repositories and at <http://www.regulations.gov>.

Determination That the Site Meets the Criteria for Deletion in the NCP

The June 21, 2019, Final Close Out Report documents that the PRPs have successfully implemented all appropriate response actions at the Buckeye Site in accordance with the 1991 ROD, the 1997, 2003 and 2011 ESDs, and EPA's Close Out Procedures for National Priorities List Sites (OLEM Directive 9320.2-22, May 2011).

The cleanup actions specified in 1991 ROD and the 1997, 2003 and 2011 ESDs have been implemented and the Buckeye Site meets acceptable risk levels for all media and exposure pathways. The environmental covenant and long-term stewardship actions required at the Buckeye Site are consistent with EPA policy and guidance.

The landfill materials and contaminated soil at the Buckeye Site are contained with a low-permeability solid waste cap. Contaminated groundwater and leachate are collected and treated by the constructed wetlands collection and treatment system prior to discharging to King's Run and Little McMahon Creek. Surface water compliance sampling confirms that the Buckeye Site is meeting discharge criteria except for occasional detections of low pH and exceedances of WET test limits, which tend to correspond with periods of low flow and low precipitation. Overall, the quality of the discharge water has improved since the construction of the treatment wetlands system, as demonstrated by an overall improvement in the WET test results and the removal of significant amounts of iron (approximately 20 tons per year), indicating that the system is working effectively.

Routine O&M, groundwater and surface water monitoring, the environmental covenant and FYRs confirm that the Buckeye Site no longer poses a significant threat to human health or the environment. Therefore, EPA has determined that no further Superfund response is necessary at the Buckeye Site.

The NCP (40 CFR 300.425(e)) states that a site may be deleted from the NPL when no further response action is

appropriate. EPA, in consultation with the State of Ohio, has determined that all required response actions have been implemented at the Buckeye Site and that no further response action is appropriate.

V. Deletion Action

The EPA, with concurrence of the State of Ohio through the OEPA, has determined that all appropriate response actions under CERCLA, other than operation and maintenance, monitoring and five-year reviews, have been completed at the Buckeye Site. Therefore, EPA is deleting the Buckeye Site from the NPL.

Because EPA considers this action to be noncontroversial and routine, EPA is taking it without prior publication. This action will be effective [insert date 60 days from the date of publication in the *Federal Register*] unless EPA receives adverse comments by [insert date within 30 days of this publication in the *Federal Register*]. If adverse comments are received within the 30-day public comment period, EPA will publish a timely withdrawal of this direct final notice of deletion before the effective date of the deletion, and it will not take effect. EPA will prepare a response to comments and continue with the deletion process on the basis of the notice of intent to delete and the comments already

received. There will be no additional opportunity to comment.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous waste, Hazardous substances, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Dated: July 17, 2019. Cathy Stepp,
Regional Administrator,
Region 5.

For the reasons set out in this document, 40 CFR part 300 is amended as follows:

**PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION
CONTINGENCY PLAN**

1. The authority citation for part 300 continues to read as follows:

Authority: 33 U.S.C. 1321(d); 42 U.S.C. 9601-9675; E.O. 13626, 77 FR 56749, 3 CFR, 2013 Comp., p. 306; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

Appendix B to Part 300 - [Amended]

2. Table 1 of Appendix B to part 300 is amended by removing the entry "OH", "Buckeye Reclamation", "St. Clairsville".
[FR Doc. 2019-16197 Filed: 7/30/2019 8:45 am; Publication Date: 7/31/2019]